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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,076	01/15/2002	Detlef Hutt	HOETRE10USA	3836
270	7590	03/01/2004	EXAMINER	
HOWSON AND HOWSON ONE SPRING HOUSE CORPORATION CENTER BOX 457 321 NORRISTOWN ROAD SPRING HOUSE, PA 19477			SALVATORE, LYNDIA	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

SLK

Office Action Summary	Application No.	Applicant(s)	
	10/031,076	HUTT ET AL.	
	Examiner	Art Unit	
	Lynda M Salvatore	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 13-16 and 18-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 13-16 and 18-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment and accompanying remarks filed 11/10/03 have been fully considered and entered. Claims 1,16,18,19,22 and 23 have been amended, claim 17 has been canceled and new claims 31 and 32 have been added as requested. Applicant's amendments to claims 1,16,18,19,22 and 23 have been found sufficient to overcome the 35 U.S.C. 112, second paragraph rejections set forth in sections 2-7 of the last Office Action. Thus, these rejections are hereby withdrawn. Applicant's arguments regarding claims 1,13,15-17,22 and 24 rejected under 35 U.S.C. 102(a) as being anticipated by Itakura et al., EP 0940437 have been found persuasive. Specifically, the European patent teaches using a styrene based resin composition rather than the thermoplastic polymers recited in claim 1. Thus, this rejection is hereby withdrawn. In addition, the rejection of claims 27-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Itakura et al., EP 0940437 and the rejection of claim 26 rejected under 35 U.S.C. 103(a) as being unpatentable Itakura et al., EP 0940437 in view of Hatke et al., US 6,551,653 are also withdrawn for their dependency on claim 1. Applicant's amendment's to claim 1 has been found sufficient to overcome the rejection of claims 1,14, and 18 rejected under 35 U.S.C. 102(b) as being anticipated by Schwarz, US 4,438,167 as set forth in section 10 of the last Office Action. Specifically, the prior art of Schwarz teaches a fiber/film composite comprising a film layer and a non-woven layer. Presently amended claim 1 recites a thermoplastic polymer containing fibers. Thus, these rejections are hereby withdrawn. Claims 28-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Schwarz, US 4,438,167 as well as claim 26 rejected under 35 U.S.C. 103(a) as being unpatentable Schwarz, US 4,438,167 in view of Hatke et al., US 6,551,653 are also withdrawn for their dependency on claim 1. Despite this advance, Applicant's amendments

have not been found to patently distinguish the claims over the prior art of Austen et al., US 4,341,827 and Itakura et al., EP 0940437 and a necessitated new ground of rejection is set forth herein below.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1,17-25, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Austen et al., US 4,341,827.

Applicant amended claim 1 to include a thickness range, the group of thermoplastic polymers and fibers. Applicant argues that prior art film sheet is materially different from that of the instant invention in a number of ways which include method used to produce, film thickness, composition, length of fibers, and final end use. With regard to Applicant's argument regarding the method and composition used to produce the film as evidence that the prior art film and the instant invention are patently different, the Examiner respectfully argues that Applicant claims are directed to a product not a product-by-process. Thus, Applicant's arguments that the process employed by Austen et al., is designed to retain spherulites, which the instant invention does not comprise, is of no consequence. Applicant's invention is not limited or defined by any specific process and the open claim language of comprising does not preclude the addition of spherulites. With regard to Applicant's argument that Austen et al., does not define the length range that constitutes a short fiber and one of ordinary skill in the art would not understand what the term "short" means in the context of fibers, the Examiner respectfully disagrees with this statement. The term short is commonly used in the art to describe staple or filler fibers , which are known in

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the art to have lengths ranging from .25-4 inches and less than 1 inch respectively. With regard to Applicant's arguments that the process and composition employed Austen et al., impart tensile strength, thermal conductivity, and reduced gas permeability rather than a film having easy tearability, the Examiner respectfully points out that Applicant is not claiming a film characterized by easy tearability. Applicant is merely claiming a biaxially oriented film comprising a thermoplastic polymer and fibers.

Recall, the patent issued to Austen et al., teaches a biaxially oriented film comprising a thermoplastic polymer (Abstract). The film may further include filler materials such as colorants, flame-retardants, and antioxidants as well as strengthening materials such as short fibers (Column 6, 40-45). Suitable polymers include polypropylene and isotactic polypropylene (Column 14, 20-30). Austen et al., further teaches extruding a multi-layered film (Column 39-45). With regard to Applicant's newly added thickness range limitation, the Examiner recognizes that thickness taught by Austen et al., is outside the claimed range, however, Austen et al., discloses in the background of the invention that very thin films having a thickness of .0001 inch can be produced using conventional processes (Column 2, 61-69). Austen et al., concedes that these films are difficult to handle, require special techniques and equipment, but nevertheless such a disclosure evidences that methods to produce thinner films are known in the art.

Thus, motivated to provide a thinner film, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the conventional film processing techniques disclosed by Austen et al.

With specific regard to claims 20-25, the position of the Examiner that the prior art presently meets the limitations of functioning in the capacity of a base layer and/or interlayer within a multi-layer film. .

With regard to claim 27, Austen et al., discloses a conventional method used to make very thin films, which includes extruding the polymer film over several chill rolls to solidify and "set" the polymer. The solidified material is passed through another series of rolls and through nip rolls to apply tension, resulting in a uniaxial orientation. Stretching the film perpendicular to the direction of the uniaxial forms biaxially stretched film (Column 2, 48-65).

Therefore, motivated by the desire to provide a thin biaxially stretched film as described, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the conventional method taught by Austen et al.

With regard to claims 28-30, Austen et al, does not specifically teach a process for packaging, labeling and laminating a product with the film, however, it is the position of the Examiner that because the structural and/or chemical limitations are met by the prior art it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the biaxially oriented polymer fiber/film in a process to package, label or a laminate a product. Motivation for said argument is found in the desire to provide suitable commercial applications of said biaxially oriented polymer fiber/film. The burden is shifted to the Applicant to evidence otherwise.

4. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Austen et al., US 4,341,827 as applied to claim 1 above and further in view of Hatke et al., US 6,551,653.

Applicant argues that no motivation exists to combine references, stating that Hatke does not add anything to Austen et al. This argument is not found persuasive on the grounds that the film taught by Austen et al., is designed to have improved tensile strength, impact properties, and thermal conductivity.

Recall, that Austen et al., fails to teach a biaxially oriented metallized polymer film, however, the patent issued to Hatke et al., teaches a method for preparing a metallized polymer film and further biaxially stretching in the machine and cross direction (Claim 1 and Column 6, 10-20). Hatke et al., teaches that metallized films are useful as dielectrics in capacitors (Abstract). Factors such as having a good dissipation factor, good heat resistance and sufficient mechanical stability are important physical characteristics (Column 1, 10-15).

Therefore, motivated to provide an a polymer film having a good dissipation factor, heat resistance, and mechanical stability, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of Hatke et al., and metallize the biaxially oriented polymer film of the of Austen et al.

5. Claims 13-16, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Austen et al., US 4,341,827 as applied to claim 1 above and further in view of Itakura et al., EP 0940437.

As discussed above, the patent issued to Austen et al., teaches a biaxially oriented film comprising a thermoplastic polymer (Abstract). Suitable thermoplastic polymers include polypropylene and isotactic polypropylene (Column 14, 20-30). The film may further include filler materials such as colorants, flame-retardants, and antioxidants as well as strengthening materials such as short fibers. Austen et al., fails to teach the use of a specific fiber having the

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claimed length and diameter ranges, however, the patent issued to Itakura et al., teaches a styrene based resin composition comprising from .001 to 4 parts by weight of fibrous material (Abstract). Suitable fiber materials include whiskers, amorphous fibers and crystalline fibers having a diameter of from .05 to 15 microns, a length from 2 to 100 microns and an aspect ratio of at least 5 (Section 0007). With regard to claim 16, Itakura et al., teaches various types of whisker material such as calcium silicate, which would inherently have a higher melting point than the styrene thermoplastic (Section 0010). The styrene resin/fiber composition may also contain various additives such as antioxidants, antistatic agents and colorants (Section 0023). The resulting styrene resin/fiber composition is suitable to extrusion-molded into sheets, which are further biaxially stretched to provide thinner sheets or films (Section 0018). Itakura et al., teaches that the addition of fibrous materials to the styrene-base resin impart surface impact properties to thin-walled molded articles without deteriorating its transparency or moldability (Section 0004-0008).

Therefore motivated by the desire to improve strength and impact properties without deteriorating transparency or moldability, it would have been obvious on one having ordinary skill in the art at the time the invention was made to employ the calcium silicate material taught by Itakura et al., in the film composition taught by Austen et al.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1482. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 12, 2004

lsj



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